

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P333703-930

Luminaire Tested: **S125RDIW-S1090D470U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333703-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIW-S1090D470U930-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4768.7 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Direct

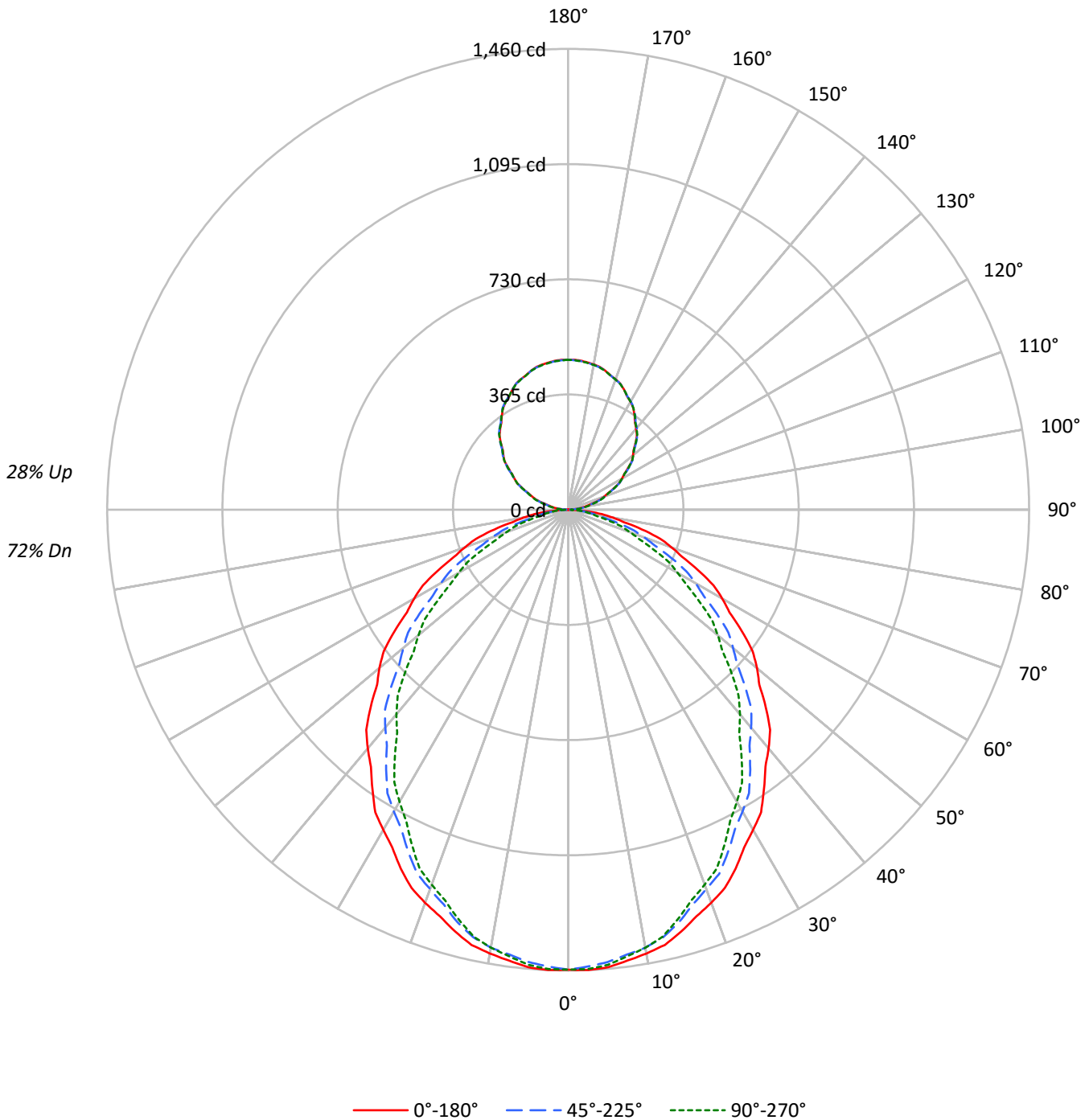
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	112	112	112	112	107	107	107	107	96	96	96	86	86	86	77	77	77	72
1	103	99	95	91	98	94	90	87	85	82	79	76	74	72	68	67	65	62
2	94	87	80	75	89	82	77	72	74	70	66	67	64	61	60	58	55	52
3	86	76	69	63	81	73	66	61	66	61	56	60	55	52	54	50	48	44
4	79	68	60	54	75	65	57	52	59	53	48	53	49	45	48	44	41	38
5	73	61	52	46	69	58	51	45	53	47	42	48	43	39	44	39	36	33
6	67	55	46	41	64	52	45	39	48	42	37	44	38	34	40	35	32	29
7	62	50	42	36	59	48	40	35	44	37	33	40	35	31	36	32	29	26
8	58	45	37	32	55	43	36	31	40	34	29	37	31	27	33	29	26	24
9	54	42	34	29	51	40	33	28	37	31	26	34	29	25	31	27	23	21
10	51	38	31	26	48	37	30	25	34	28	24	31	26	23	29	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9412	9412	9412
5°	9433	9326	9383
10°	9362	9239	9239
15°	9250	9052	8978
20°	9108	8790	8685
25°	8941	8533	8345
30°	8733	8232	7970
35°	8521	7923	7550
40°	8323	7599	7136
45°	8082	7238	6685
50°	7840	6845	6215
55°	7560	6469	5713
60°	7279	6013	5174
65°	6946	5483	4557
70°	6567	4823	3928
75°	6041	4065	3266
80°	5322	3195	2741
85°	4483	2608	2445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.0	2.9
10°-20°	382.9	8.0
20°-30°	555.3	11.6
30°-40°	632.9	13.3
40°-50°	616.9	12.9
50°-60°	519.3	10.9
60°-70°	364.0	7.6
70°-80°	187.1	3.9
80°-90°	48.3	1.0
90°-100°	31.8	0.7
100°-110°	93.9	2.0
110°-120°	159.1	3.3
120°-130°	209.4	4.4
130°-140°	234.6	4.9
140°-150°	229.9	4.8
150°-160°	193.1	4.0
160°-170°	128.4	2.7
170°-180°	44.9	0.9
0°-30°	1075.3	22.5
0°-40°	1708.1	35.8
0°-60°	2844.3	59.6
0°-90°	3443.7	72.2
90°-120°	284.8	6.0
90°-150°	958.7	20.1
90°-180°	1325.0	27.8
0°-180°	4768.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1457	1457	1457	1457	1457	
5°	1455	1450	1438	1449	1447	138
15°	1384	1376	1354	1352	1343	390
25°	1255	1237	1198	1183	1171	577
35°	1081	1053	1005	974	958	676
45°	885	851	792	750	732	682
55°	671	635	574	527	507	600
65°	454	416	359	316	298	450
75°	242	208	163	140	131	256
85°	60	42	35	34	33	68
90°	0	3	6	8	9	4
95°	24	25	28	31	32	26
105°	84	86	88	90	92	90
115°	159	161	162	161	161	157
125°	232	235	235	234	234	208
135°	302	304	305	305	303	233
145°	366	368	369	369	368	229
155°	419	419	419	421	419	193
165°	456	455	455	457	454	128
175°	474	472	472	474	472	45
180°	475	475	475	475	475	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3
2.5°	1459.9	1459.3	1458.7	1458.1	1457.5	1456.3	1454.3	1452.4	1450.4	1448.5	1450.4
5°	1455.1	1454.1	1453.1	1452.1	1451.2	1449.3	1446.6	1443.9	1441.2	1438.5	1441.0
7.5°	1440.7	1439.8	1438.8	1437.9	1437.0	1434.9	1431.7	1428.5	1425.2	1422.0	1423.8
10°	1427.5	1426.8	1426.0	1425.3	1424.6	1422.5	1419.1	1415.7	1412.3	1408.8	1409.6
12.5°	1412.5	1411.6	1410.7	1409.7	1408.8	1406.1	1401.5	1396.9	1392.3	1387.6	1388.2
15°	1383.5	1382.0	1380.5	1379.1	1377.6	1374.4	1369.2	1364.1	1358.9	1353.8	1353.6
17.5°	1350.7	1348.4	1346.2	1343.9	1341.7	1337.3	1330.9	1324.5	1317.9	1311.5	1310.3
20°	1325.2	1322.7	1320.3	1317.8	1315.4	1310.3	1302.4	1294.6	1286.8	1279.0	1277.7
22.5°	1297.0	1294.5	1292.1	1289.6	1287.2	1281.9	1273.7	1265.4	1257.2	1249.0	1246.6
25°	1254.7	1251.1	1247.4	1243.7	1240.1	1233.7	1224.7	1215.6	1206.6	1197.5	1194.3
27.5°	1206.3	1201.8	1197.3	1192.9	1188.5	1181.5	1171.7	1162.0	1152.3	1142.6	1138.2
30°	1171.1	1166.4	1161.8	1157.2	1152.5	1145.0	1134.7	1124.5	1114.2	1103.9	1098.3
32.5°	1136.7	1131.3	1125.8	1120.5	1115.0	1107.1	1096.6	1086.1	1075.6	1065.2	1059.0
35°	1080.8	1075.0	1069.1	1063.2	1057.4	1048.9	1037.9	1026.9	1015.9	1004.9	997.8
37.5°	1026.0	1018.9	1011.7	1004.6	997.4	988.2	976.8	965.5	954.1	942.8	934.3
40°	987.2	979.9	972.6	965.2	957.9	948.4	936.6	924.9	913.1	901.4	892.1
42.5°	946.7	939.2	931.7	924.1	916.6	906.8	894.6	882.6	870.4	858.3	849.4
45°	884.9	877.8	870.7	863.6	856.6	846.3	832.8	819.4	805.9	792.5	782.7
47.5°	820.8	813.3	805.8	798.4	790.9	780.4	766.9	753.3	739.7	726.2	716.1
50°	780.3	772.3	764.2	756.1	748.0	737.0	723.1	709.1	695.2	681.3	671.0
52.5°	736.3	728.1	719.7	711.5	703.3	692.5	679.4	666.2	653.1	639.9	628.8
55°	671.4	663.6	655.7	647.9	640.1	629.3	615.6	601.9	588.2	574.5	563.5
57.5°	605.8	597.5	589.1	580.7	572.3	561.6	548.4	535.2	522.0	508.7	498.0
60°	563.5	555.0	546.4	537.9	529.3	518.4	505.2	492.0	478.7	465.5	454.8
62.5°	518.6	510.5	502.3	494.1	485.9	475.2	461.8	448.3	435.0	421.5	411.6
65°	454.5	446.2	437.9	429.6	421.3	410.7	397.7	384.7	371.8	358.8	349.0
67.5°	390.9	382.6	374.3	366.0	357.7	347.3	334.8	322.5	310.1	297.6	288.7
70°	347.8	339.5	331.2	322.9	314.5	304.3	292.0	279.8	267.6	255.4	247.8
72.5°	305.6	297.4	289.3	281.2	273.0	263.3	251.8	240.4	228.9	217.5	210.5
75°	242.1	234.8	227.5	220.1	212.8	204.0	193.7	183.4	173.2	162.9	157.5
77.5°	179.2	173.3	167.5	161.6	155.7	148.6	140.5	132.2	124.0	115.8	112.0
80°	143.1	137.2	131.3	125.5	119.6	113.2	106.4	99.5	92.7	85.9	83.6
82.5°	107.9	102.6	97.3	92.0	86.7	81.8	77.0	72.3	67.7	62.9	62.0
85°	60.5	56.1	51.7	47.3	42.9	40.1	38.9	37.7	36.4	35.2	35.0
87.5°	20.3	19.1	17.9	16.6	15.4	14.7	14.6	14.5	14.4	14.3	14.5
90°	0.4	1.1	1.7	2.4	3.0	3.6	4.2	4.7	5.3	6.0	6.4
92.5°	9.0	9.4	9.9	10.4	10.8	11.3	12.1	12.8	13.5	14.2	14.8
95°	24.1	24.2	24.4	24.5	24.7	25.2	26.0	26.8	27.6	28.5	29.0
97.5°	39.9	39.9	40.0	40.1	40.2	40.8	41.9	43.0	44.2	45.3	45.8
100°	51.8	51.8	51.8	51.8	51.8	52.3	53.3	54.4	55.4	56.5	57.3
102.5°	64.4	64.7	65.1	65.5	65.8	66.2	66.8	67.3	67.8	68.3	69.1
105°	84.2	84.6	85.0	85.4	85.9	86.3	86.8	87.3	87.8	88.3	88.8
107.5°	106.2	106.6	107.0	107.4	107.8	108.2	108.5	108.9	109.3	109.7	109.9
110°	121.2	121.6	122.1	122.5	122.9	123.2	123.4	123.7	123.9	124.2	124.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	136.6	136.8	137.0	137.2	137.5	137.7	138.0	138.4	138.6	138.9	139.1
115°	159.2	159.6	160.0	160.3	160.6	160.9	161.0	161.2	161.3	161.5	161.4
117.5°	182.1	182.1	182.3	182.5	182.6	182.8	183.0	183.0	183.2	183.4	183.4
120°	196.2	196.7	197.1	197.5	197.9	198.1	198.2	198.3	198.4	198.4	198.4
122.5°	211.6	211.7	211.9	212.1	212.1	212.4	212.5	212.8	213.0	213.2	213.1
125°	232.4	232.9	233.4	233.9	234.4	234.7	234.8	234.9	235.0	235.1	234.9
127.5°	254.6	254.9	255.2	255.4	255.8	255.9	256.0	256.1	256.2	256.3	256.2
130°	267.9	268.3	268.7	269.1	269.5	269.9	270.0	270.2	270.4	270.5	270.4
132.5°	281.2	281.8	282.6	283.2	283.9	284.2	284.2	284.1	284.1	284.1	284.0
135°	302.2	302.8	303.3	303.8	304.3	304.5	304.6	304.7	304.8	304.8	304.8
137.5°	322.0	322.5	323.0	323.5	324.0	324.3	324.5	324.7	324.8	325.1	325.1
140°	334.8	335.2	335.6	336.0	336.4	336.8	337.0	337.3	337.5	337.8	337.9
142.5°	347.5	347.8	348.2	348.5	348.9	349.2	349.5	349.8	350.2	350.5	350.6
145°	366.2	366.6	366.9	367.2	367.5	367.8	368.0	368.3	368.5	368.8	368.8
147.5°	383.5	383.7	383.8	384.0	384.3	384.4	384.6	384.8	385.0	385.2	385.4
150°	395.0	394.9	394.8	394.8	394.7	394.8	395.2	395.5	395.8	396.2	396.2
152.5°	404.5	404.6	404.7	404.8	405.0	405.0	405.2	405.4	405.4	405.6	405.8
155°	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.2	419.3	419.4	419.7
157.5°	432.0	431.9	431.7	431.5	431.3	431.3	431.4	431.5	431.5	431.6	431.9
160°	439.8	439.5	439.2	439.0	438.7	438.6	438.7	438.8	438.9	439.0	439.4
162.5°	446.5	446.4	446.2	446.0	445.8	445.7	445.7	445.7	445.8	445.8	446.2
165°	455.6	455.4	455.3	455.1	454.9	454.9	455.0	455.1	455.2	455.3	455.6
167.5°	463.3	463.0	462.7	462.4	462.0	461.9	461.9	461.9	461.9	461.9	462.4
170°	467.4	467.1	466.8	466.4	466.1	465.9	465.9	465.9	465.9	465.9	466.4
172.5°	470.4	470.1	469.8	469.4	469.1	469.0	469.0	469.0	469.0	469.0	469.4
175°	473.8	473.4	473.0	472.7	472.4	472.2	472.2	472.2	472.2	472.2	472.7
177.5°	475.4	475.2	474.9	474.7	474.3	474.2	474.2	474.1	474.0	473.9	474.3
180°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3
2.5°	1452.4	1454.3	1456.3	1457.1	1456.9	1456.8	1456.5	1456.4
5°	1443.4	1445.9	1448.3	1449.3	1448.8	1448.3	1447.8	1447.3
7.5°	1425.5	1427.2	1428.9	1429.5	1428.9	1428.4	1427.8	1427.3
10°	1410.3	1411.0	1411.8	1411.8	1411.0	1410.3	1409.6	1408.8
12.5°	1388.8	1389.3	1389.8	1389.5	1388.4	1387.3	1386.2	1385.0
15°	1353.3	1353.1	1352.8	1351.6	1349.4	1347.2	1345.0	1342.8
17.5°	1309.0	1307.8	1306.6	1305.1	1303.3	1301.5	1299.7	1297.9
20°	1276.5	1275.3	1274.1	1272.4	1270.2	1268.0	1265.8	1263.6
22.5°	1244.2	1241.8	1239.4	1237.3	1235.5	1233.7	1231.8	1230.0
25°	1191.2	1188.0	1184.8	1181.9	1179.2	1176.5	1173.8	1171.1
27.5°	1133.8	1129.4	1124.9	1121.4	1118.8	1116.1	1113.5	1111.0
30°	1092.7	1087.0	1081.4	1077.5	1075.3	1073.1	1070.9	1068.7
32.5°	1052.8	1046.5	1040.3	1035.8	1033.1	1030.3	1027.4	1024.7
35°	990.7	983.6	976.5	971.3	967.8	964.4	961.0	957.6
37.5°	925.8	917.3	908.7	902.9	899.5	896.2	892.8	889.5
40°	882.8	873.5	864.2	858.1	855.2	852.2	849.3	846.4
42.5°	840.5	831.5	822.6	816.0	811.7	807.5	803.2	798.8
45°	772.9	763.1	753.3	746.6	742.9	739.2	735.6	731.9
47.5°	706.0	695.9	685.9	678.8	674.7	670.7	666.7	662.6
50°	660.7	650.4	640.2	633.2	629.6	625.9	622.2	618.6
52.5°	617.8	606.7	595.7	588.3	584.7	581.0	577.3	573.6
55°	552.5	541.5	530.5	523.0	519.1	515.2	511.3	507.4
57.5°	487.2	476.5	465.7	458.5	455.1	451.6	448.1	444.7
60°	444.0	433.3	422.5	415.3	411.6	408.0	404.3	400.6
62.5°	401.6	391.6	381.6	374.8	371.1	367.5	363.8	360.1
65°	339.2	329.5	319.7	312.9	309.2	305.6	301.9	298.2
67.5°	279.7	270.8	261.8	255.8	252.9	250.0	247.0	244.1
70°	240.2	232.6	225.0	219.7	216.8	213.9	210.9	208.0
72.5°	203.5	196.5	189.5	185.0	183.0	181.1	179.1	177.2
75°	152.1	146.8	141.4	137.8	136.1	134.4	132.6	130.9
77.5°	108.3	104.5	100.7	98.2	96.9	95.6	94.4	93.1
80°	81.4	79.2	77.0	75.7	75.2	74.7	74.2	73.7
82.5°	60.9	59.8	58.9	58.2	57.9	57.6	57.3	57.0
85°	34.7	34.5	34.2	34.0	33.8	33.5	33.3	33.0
87.5°	14.6	14.7	14.8	14.7	14.5	14.4	14.3	14.1
90°	6.8	7.2	7.6	7.9	8.2	8.4	8.6	8.9
92.5°	15.2	15.8	16.4	16.7	16.9	17.0	17.3	17.4
95°	29.6	30.2	30.7	31.1	31.3	31.5	31.6	31.8
97.5°	46.4	47.0	47.5	47.8	47.9	48.0	48.1	48.2
100°	58.0	58.8	59.5	59.9	60.1	60.3	60.4	60.6
102.5°	70.0	70.8	71.6	72.1	72.3	72.6	72.8	73.1
105°	89.3	89.8	90.3	90.7	90.9	91.2	91.4	91.6
107.5°	110.1	110.4	110.6	110.8	110.8	110.7	110.7	110.7
110°	124.7	124.9	125.1	125.2	125.1	125.1	125.0	124.9



TEST NUMBER: P333703-930

CATALOG NUMBER: S125RDIW-S1090D470U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	139.2	139.3	139.4	139.4	139.3	139.1	138.9	138.8
115°	161.3	161.3	161.2	161.1	161.0	160.9	160.9	160.8
117.5°	183.5	183.5	183.6	183.5	183.2	182.9	182.5	182.1
120°	198.4	198.4	198.4	198.3	198.0	197.6	197.3	197.0
122.5°	213.1	213.0	213.0	212.8	212.5	212.3	212.0	211.7
125°	234.7	234.6	234.4	234.2	234.2	234.1	234.0	233.9
127.5°	256.2	256.1	256.0	255.8	255.7	255.5	255.4	255.2
130°	270.4	270.3	270.2	270.0	269.9	269.7	269.5	269.4
132.5°	283.9	283.8	283.7	283.6	283.4	283.2	282.9	282.7
135°	304.8	304.8	304.8	304.7	304.4	304.0	303.7	303.4
137.5°	325.2	325.3	325.5	325.3	324.9	324.5	324.0	323.6
140°	338.1	338.3	338.4	338.3	337.9	337.5	337.0	336.6
142.5°	350.7	350.7	350.8	350.7	350.3	349.8	349.4	349.0
145°	368.8	368.8	368.8	368.7	368.4	368.2	367.9	367.7
147.5°	385.6	385.8	386.0	385.8	385.2	384.7	384.1	383.6
150°	396.2	396.2	396.2	396.1	395.9	395.7	395.6	395.4
152.5°	406.0	406.2	406.3	406.3	406.0	405.8	405.4	405.1
155°	420.0	420.4	420.7	420.7	420.3	419.9	419.5	419.1
157.5°	432.3	432.6	432.9	432.8	432.3	431.7	431.2	430.6
160°	439.7	440.0	440.3	440.3	439.9	439.4	439.0	438.6
162.5°	446.6	446.9	447.4	447.4	446.9	446.4	445.9	445.4
165°	455.9	456.2	456.6	456.5	456.0	455.5	455.0	454.5
167.5°	462.8	463.3	463.8	463.8	463.3	462.8	462.3	461.8
170°	466.9	467.4	468.0	467.9	467.3	466.8	466.2	465.6
172.5°	469.9	470.4	470.9	470.9	470.3	469.9	469.4	468.9
175°	473.2	473.8	474.3	474.2	473.6	473.0	472.5	471.9
177.5°	474.7	475.2	475.6	475.5	475.1	474.6	474.1	473.7
180°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8

(END OF REPORT)